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(71) Applicant: **INGENIA TECHNOLOGY LIMITED**
**20 Farringdon Road**
**London EC1M 3AP (GB)**

(72) Inventor: **Cowburn, Russell Paul**
**London, SW7 2BW (GB)**

(74) Representative: **Meldrum, David James**
**D Young & Co LLP**
**120 Holborn**
**London EC1N 2DY (GB)**

## (54) Authenticity verification with linearised data

(57) A method and apparatus for determining a digital signature from an article made of paper, cardboard, plastic or many other material types. A coherent source directs a beam to illuminate the article and a detector arrangement collects data points from light scattered from many different parts of the article to collect a large number of independent data points, typically 500 or more. By collecting a large number of independent signal contributions specific to many different parts of the article, a digital signature can be computed that is unique to the area of the article that has been scanned. This measurement can be repeated whenever required to test authenticity of the article. Using this method, it has been discovered that it is essentially pointless to go to the effort and expense of making specially prepared tokens, since unique characteristics are measurable in a straightforward manner from a wide variety of every day articles.

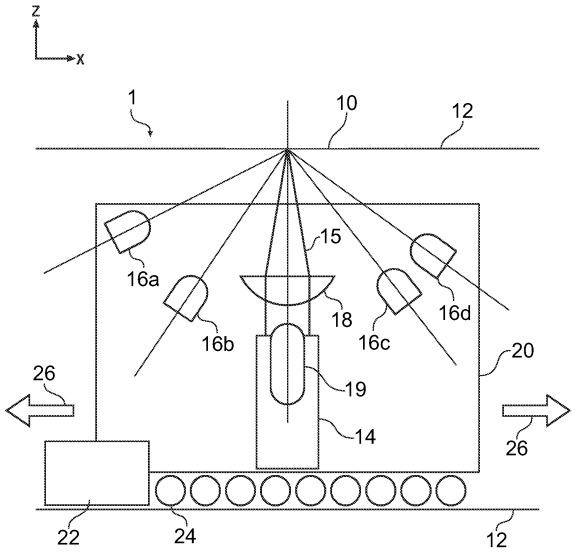


Fig. 1

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# EUROPEAN SEARCH REPORT

Application Number
EP 09 17 0968

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The present search report has been drawn up for all claims

| Place of search | Date of completion of the search | Examiner |
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| The Hague | 20 December 2010 | Versluis, Anton |

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## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 09 17 0968

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